CLAIMS

What is claimed is:

1. A system for intelligently redirecting traffic between a Public Switched Telephone Network (PSTN) and a network, the system comprising:

an intelligent communications platform (ICP) connected between two signaling end points (SEPs) to intercept signaling system 7 (SS7) messages between the two SEPs; and

a communications control module connected to the ICP via a communication link, the communications control module for providing management and communications to the ICP and providing access to the management and communications for a plurality of subscribers.

2. The system of claim 1 wherein the ICP is an invisible node.

3. The system of claim 1 wherein the ICP comprises one or more Message Transfer Part layer 3 (MTP3) systems, wherein message discrimination is disabled in at least one of the one or more MTP3 systems.

4. The system of claim 1 wherein the ICP includes:

a SS7 Input/Output (I/O) card for processing SS7 messages; and

a Central Processing Unit (CPU) card for processing ISDN user part (ISUP) and Transactional Capabilities Application Part (TCAP) messages.

5. The system of claim 1 wherein the ICP includes a Signaling Network Testing (SNT) node.

6. The system of claim 1 wherein the ICP includes a Signaling Network Management (SNM) node.

7. The system of claim 1 wherein the communications control module includes:

instructions for communicating with other ICPs for updated information on congestion of certain routes.

8. The system of claim 1 further including:

an applications layer for hosting SS7 applications;

a core services layer for providing a plurality of core services and interconnected to the applications layer;

an interface to a Message Transfer Part layer 3 (MTP3) system for receiving MTP3 messages and interconnected to the core services layer; and

an interface to a Message Transfer Part layer 1 (MTP1) system and a Message Transfer Part layer 2 (MTP2) for receiving MTP1 and MTP2 messages and interconnected to the interface to the MTP3.

9. The system of claim 8 wherein the interface to the MTP1/MTP2 systems includes at least two MTP1/MTP2 processors.

10. The system of claim 8 wherein the core service layer supports a plurality of support services and signaling processes to distribute traffic to the applications layer and accept downward message routing requests.

11. The system of claim 8 wherein the applications layer supports a plurality of applications that monitor, modify or create messages.

12. A method for intelligently redirecting data traffic between a Public Switched Telephone Network (PSTN) and a network, the method comprising:

connecting an intelligent communications platform (ICP) between two signaling end points (SEPs) to intercept signaling system 7 (SS7) messages between the two SEPs; and

connecting a communications control module to the ICP via a communication link, the communications control module for providing management and communications to the ICP and providing access to the management and communications for a plurality of subscribers.

13. The method of claim 12 further including:

disabling message discrimination in a Message Transfer Part layer 3 (MTP3) system.

14. The method of claim 12 further including:

pairing signaling links and coordinating messages between the two SEPs.

15. The method of claim 12 wherein the signaling links comprises a SS7 link.

16. The method of claim 12 further including:

processing SS7 messages at a SS7 Input/Output (I/O) card within the ICP; and

processing ISDN user part (ISUP) and Transactional Capabilities Application Part (TCAP) messages at a Central Processing Unit (CPU) card within the ICP.

17. The method of claim 12 further including:

communicating with other ICPs for updated information on congestion of certain routes.

18. The method of claim 12 further including:

hosting SS7 applications on an applications layer;

providing a plurality of core services at a core services layer where the core services layer is interconnected to the applications layer;

receiving Message Transfer Part layer 3 (MTP3) messages at an interface to a MTP3 system where the MTP3 system is interconnected to the core services layer; and

receiving Message Transfer Part layer 1 (MTP1) and Message Transfer Part layer 2 (MTP2) messages at an interface to a MTP1 system and a MTP2 system where the interface to the MTP1 and MTP2 systems are interconnected to the interface to the MTP3 system.

19. The method of claim 12 wherein the interface to the MTP1/MTP2 systems includes at least two MTP1/MTP2 processors.

20. The method of claim 12 wherein the core service layer supports a plurality of

support services and signaling processes to distribute traffic to the applications layer and accept downward message routing requests.

21. The method of claim 12 wherein the applications layer supports a plurality of applications that monitor, modify or create messages.

22. A system for processing signaling traffic from a Public Switched Telephone Network (PSTN) or data network, the system comprising:

a first signaling end point (SEP);

a second SEP; and

an intelligent communications platform (ICP) connected between the two SEPs to intercept signaling system 7 (SS7) messages between the first and second SEPs, wherein if the ICP fails, the SS7 messages pass through the ICP as if the ICP does not exist.

23. The system of claim 22 further comprising:

a first link between the first SEP and the ICP; and

a second link between the ICP and the second SEP, wherein if the ICP fails, the first and second link close.

24. The system of claim 22 further comprising:

a first link between the first SEP and the ICP; and

a second link between the ICP and the second SEP, wherein the first and second link may be manually closed while still allowing the ICP to monitor traffic flowing through the first and second links.